

BACKGROUND OF THE INVENTION

Field of the invention

The new invention relates to the method, process, devices or apparatus of aircraft, specifically improvements and advantages, which, allow for the first time all occupants of helicopters and planes to eject laterally and safely from a helicopter or plane.

Description of prior art

Until now the failing has been that aircraft occupant ejection was possible only on a horizontal-vertical and even longitudinal axis to the upright posture of a fighter jet as in military fighter jets, leaving most flying individuals and parties without access to a timely means of emergency exit in the event of a helicopter or plane failure. Clearly, it is inefficient and very dangerous, and improbable of success to attempt to eject vertically through the ceiling, past the rotor-blades of a helicopter or gyroplane by rocket catapult. Longitudinal ejection cannot provide for equal access to an emergency exit, because aircraft are built along the longitude, relegating the larger surface areas along the right and left latitudes of an aircraft fuselage as the sole reasonable, sound and safe areas for emergency exits of equal access in a commercial airliner or general aviation aircraft or other aircraft. Vertical ejection is inefficient from planes and poses a greater risk because of the greater forces required in most instances when vertically ejecting an aircraft seat or apparatus and occupant or occupants along the height of a planes interior depth through and into the counter acting forces of gravity. All ejection devices until now as cited in the references are void of the ability to laterally eject a plane aircraft occupant or helicopter aircraft occupant to safety, when said aircraft is in its upright posture or otherwise.

SUMMARY OF THE INVENTION

The objects and advantages of the new invention provide a safe, stable and efficient process, methodology, devices and apparatus, whereby all occupants of aircraft, be they helicopters or planes, or, like action crossovers, such as gyroplanes or spacecraft designed to fly like planes, are laterally ejected from an

imperiled and life threatening said aircraft. Accordingly, it is an object of this invention to provide laterally aligned escape devices for all types of private, business, commercial, government and general aviation aircraft, which lateral ejection apparatus are stable, reliable, simple, efficient, safe and effective at extracting aircraft occupants from life threatening aircraft, whether they are sitting in a seat or lying down in a bed.

More specifically, this invention seeks to provide a method and process of escaping life threatening aircraft by rocket catapult propulsion and a unique multiple parachute configuration, with a gas powered rotor motor harness which is useful and effective, not just at moderate and tolerable altitudes, but during onboard fires, runway overshooting, very low or zero altitudes, or when over a body of water at a very low or tolerable altitude.

Still a further object is to extract pilots, passengers, emergency and medical patients in seats, beds or apparatus from life threatening aircraft by configuring rigid ejection apparatus framework perpendicular to aircraft longitudinal horizontal axis and propelling said occupant or occupants out the side of said aircraft by a rocket catapult system, past an emergency pneumatic rocket actuated sliding aircraft door or panel, wing strut, support or other object in the lateral ejection pathway, so then an automatic parachute system can deploy, lower or recover the laterally ejected occupant or occupants to the ground or surface.

Another object is to provide laterally ejectable apparatus which are aerodynamically able to navigate a life threatening aircraft debris field, by employing a track and guide rail construction of a monorail or monorails type, which uses a tubular airfoil form of monorail working as an airfoil or airfoils, i.e. wings, yaws, fins, flaps, rudders attached to the underside or underside and back of a lateral ejection apparatus, with air current flowing through the empty monorail track tube or tubes, insuring a steady and reliable emergence flight from said aircraft debris field.

Another object is to provide new aircraft fuselage structures, which are reinforced and/or enlarged, with fuselage struts and tempered glass panes, so that a reduced but relative number of aircraft seats or beds are still able to be installed in existing aircraft fuselage designs, while incorporating said lateral ejection apparatus, without weakening the fuselage structure or reducing or impinging a field of view in the aircraft fuselage, cabin or cockpit.

Another object is to make available, specifically, an ejection guide rail monorail roller truck and roller truck wheels construction, which is a fire resistant, self ventilating grid formation for ducting heat caused by fire or enemy fire, thereby said ventilating preventing or minimizing track freezing or similar failure of a guide track and rail system due to severe friction of metallic or alloy tracks, a track and guide rail expanding against one another from expose to very high temperatures.

Another object is to provide laterally ejecting apparatus at very low or zero altitudes, during aircraft fires, or water escape flotation, escapes that utilize a delayed seat, bed or apparatus separation from an occupant, using a gas powered rotor motor harness, so that the apparatus provides protective surfaces to the occupant as the laterally ejecting apparatus impacts the ground, water or other surface.

Another object is for not just doors and panels of aircraft to be removed by pneumatic means from the lateral ejection pathway, but all objects and instruments by pneumatic or other explosive charge means: wing struts and supports and other canopy like aircraft doors or panels can also be quickly cleared from the lateral ejection pathway.

Another object is to use teflon or other fire resistant material, primarily on the outer surface, but not limited to the outer surfaces of a seat or bed or apparatus right and left side mounted, pressure sensitive airbags, and roller truck wheels, and track mesh end cover to prevent fire or enemy fire from burning or hitting the ejected occupant or occupants, or igniting the guide track or igniting the roller truck wheels.

Another object is to minimize the lateral force on a spine, neck, head and organs of an occupant by either turning a seat or apparatus in a horizontal degree just prior to lateral ejection to reduce the vertical angle of the human body to the lateral force of the rocket catapult, or by using side mounted pressure sensitive airbags to create a rigid restraint and confine for the body, head, neck, spine and organs; or using any other bucket or concave form to restrain a human body during lateral ejection.

Another object to achieve is an advantageous arrangement combining the advantages of conventional jet aircraft vertically seeking ejection apparatus with the advantages of lateral ejection apparatus and process. When aircraft seats and their occupants can be aligned and usually are in commercial and private aircraft, along the edge of the planes right and left latitudes, and ejected laterally; thereby, when an aircraft is in an upright posture, minimizing both the applied force of gravity pulling down on the seat and seat occupant and the distance the apparatus transverses; so to be removed by the lateral ejection apparatus powered by a rocket catapult and moving from point A to point B along the same or near same gravitational plane as the aircraft, when ejected from a plane in a dangerous or life threatening descent; so that an automatic, individual parachute system can be automatically activated and deployed to break and stabilize the plane occupant(s) descent to a surface, after ejecting laterally from a plane. Subsequently, the weight or seat of an aircraft occupant is now placed on a set of tracks, rails or apparatus arranged perpendicular to the horizontal longitudinal axis of an aircraft and ejected by a rocket catapult system past the emergency sliding, fracturing or frangible door, panel, object or instrument removed from the path of the laterally ejecting seat and occupant by pneumatic or other explosive charge means for the first time. Separately falling seats and parachutists in seat rows aligned in aisles on a reloading chain and gas engine powered

track and guide rail lateral ejection apparatus are also a useful construction of the invention for laterally ejecting aircraft occupants who are arranged in rows and aisles.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1A, see **FIG. 1**.

FIG. 1B is a cutaway inside rear view of a single or double track lateral ejection apparatus for two side to side aircraft seats.

FIG. 1C is the oblique view of the lateral ejection bed's long track ends, and sleek, hidden rocket catapult system.

FIG. 1 is a transparent side view of the enlarged and reinforced aircraft fuselage, with two lateral ejection apparatus, with triple monorail tracks, mounted on the supporting track and launcher platform legs in which rotor positioning tail fins are slotted.

FIG. 2 is a side view of the reinforced and enlarged aircraft fuselage, with a closed fixed emergency greater sliding door panel, with an interior operational conventional hinge door.

FIG. 3 is a side view of the aircraft fuselage, and the fixed emergency greater sliding door panel with an interior operational conventional hinge door both transversing the aircraft fuselage by means of pneumatic rockets.

FIG. 4 is a side view of the path of the laterally ejecting seat chassis, or apparatus moving away from the upright aircraft fuselage.

FIG. 5 is a side view of two laterally ejected devices initiating parachute extraction.

FIG. 6 is a side view of the triangular triple monorail apparatus.

FIG. 7 is a side view of the triangular triple monorail outer track, guide track box.

FIG. 8 is a side view of the triple monorails after the outer track box has been ejected.

FIG. 9 is an anterior side perspective view of the triangular triple monorails arrangement, showing a blast shield, and three track support columns for three tracks.

FIG. 10 is a transparent elevated view of the back monorail track and guide rail.

FIG. 11 is a transparent elevated view of one of the two bottom positioned monorail tracks and guide rails.

FIG. 12 is an elevated view of the supporting track roller trucks and roller truck wheels.

FIG. 13 is an elevated view of a corner elbow supporting track roller trucks and roller truck wheels.

FIG. 14 is an elevated view of an aircraft seat with three parachute containers along the back and inside an ejection seat rigid framework.

FIG. 15 is an elevated transparent view of a hermetically sealed altitude appropriate parachute ignition sensor and fuse box.

DETAILED DESCRIPTION OF THE INVENTION AND DRAWINGS

FIG. 1A, see **FIG 1**.

FIG. 1B shows the rear view of a single **1B** and/or double track **2B**, and **3B**, lateral ejection system with two side to side aircraft seats **4B**, **5B**, attached to a center console **6B**, and with two aircraft door canopies **7B**, **8B**, which arrows **9B**, **10B**, **11B**, **12B**, show the right angle trajectory which aircraft doors are pneumatically rocketed, fractured or frangilized by explosive charge means at the onset of the lateral ejection sequence. In a single or double track construction, a number of rocket catapult chambers are used, which are correspondingly rocket catapult chambers, **1bb**, **2bb** and/or **3bb**. Moreover the lateral ejection tool is sightable by utilizing an aiming mechanism **FIG. 1B**, directed by a mechanized gear console handle **13B**, and swing arm barrel sight seat swivel **14B**; only when existing fuselage area allows; actuated by cylindrical telescoping hydraulic arms **15B**, and **16B**, capable of realizing near perfect, or, perfect theoretical, lateral ejection respective of the real time forward motion (pressure) from velocity and position of a failed aircraft, by targeting preferred seat trajectories **9B**, **10B**, **11B**, **12B**, towards any quadrant within a sphere when right and left bipolar seat pairs **FIG. 1B**, are configured in a combat or high performance helicopter or plane; if said aiming mechanism operates independent of a robotic arm, which costs would perhaps become prohibitive except in luxury aircraft or military designs in an exemplary embodiment. The aiming mechanism can work by pushing and pulling the lateral ejection track and guide rail with attached seat chassis, swinging from a center console **13B**, containing a ceramic tile with alloy backing blast shield, and a swivel plate **14B**, on which a single track, double track or triple monorail track are attached without overburdening the aircraft with additional weight, including attached simply to an aircraft floor or wall frame structure without a center console, riser or launcher platform.

FIG. 1C shows a lateral ejection bed **1C**, with three long, track ends **2C**, **3C**, **4C**, in a triangular triple monorail track configuration and sleek, hidden rocket catapult system **5C**, between the two bottom mounted monorail tracks; as well as a supporting track **6C**.

FIG. 1 shows an aircraft fuselage, having a cockpit, frame, door frame, door and windshield structure **37**, which is large enough to be fitted with reinforcing aircraft fuselage struts and supports **47, 48, 49, 50**, slender tempered glass panes **51, and 52**, fitted between reinforcing fuselage struts and supports, and two triple monorail ejection devices **FIG. 6**, on each side of the aircraft one behind the other. **FIG. 1** is a transparent side view of an aircraft fuselage, with two lateral ejection components **FIG 6**, triple monorails, mounted on the supporting track launcher platform legs **9**, in which the bottom tail fins are slotted. The aircraft fuselage has an emergency sliding door panel **34**, tracks **30,31**, an interior operational conventional hinge door **33**, and an exterior sliding door arm **32**, located near the lower right corner of the sliding emergency greater door panel. **46, and 46**, are spring loaded latch catches attached to the fuselage frame on the sides of the aircraft to prevent the recoiling of the emergency sliding greater door panel into the lateral ejection path.

FIG. 2 is a side view of the reinforced and enlarged aircraft fuselage, with a closed fixed emergency greater sliding door panel **34**, and interior operational conventional hinge door **33**.

FIG. 3 is a side view of the aircraft fuselage **37**, and closed fixed emergency greater sliding door panel **34**, with interior operational conventional hinge door together transversing the aircraft fuselage by means of pneumatic rockets **35,36**. **FIG. 3** also shows a seat chassis **38**, attached to a triple monorail ejection device or apparattii **FIG. 6**, during the ejection sequence when airbags **40, 41**, and seat chassis, right side airbag **42**, opens simultaneous with pneumatic rockets **35, 36** transversing the emergency greater sliding door panel to the rear of the fuselage, where spring loaded latch catches **46, and 46**, are pushed by the sliding panel into a locked and rigid position.

FIG. 4 is a side view of the path of the laterally ejecting apparattii **5**, with attached seat chassis **38**, after ejecting from the aircraft fuselage, and guided by a rocket catapult system towards clearing the tail of the aircraft with the assistance of bottom-mounted tail fins **11**. Left side head, neck, spine and chest protector, pressure sensitive airbag **43**, is shown with a right side pressure sensitive airbag **42**, concealed behind it **43**.

FIG. 5 is a side view of the laterally ejected devices initiating parachute extraction by means of a drogue chute **39**, extraction, after the ejected apparattii have cleared the aircrafts debris. Similarly, to **FIG. 4**, **FIG. 5** identifies a left side airbag **43**, with a right side airbag **42**, concealed behind.

FIG. 6 is a side view of the triple monorail components of the triple monorail lateral ejection method, comprising two bottom monorails **1**, and one monorail positioned at a right angle **2**, to the bottom two monorails. Each monorail consists of wheel truck axel bases **3**, and truck rollers **4**. The monorails are surrounded by an outer track box **5**, which is movable laterally along the triple monorails, and to which any seat frame, chassis or apparattii containing a passenger or occupant may be attached by means of a flange **44**, located at the top interior corner of the outer track box; and by a drillable surface **45**, on the outer track

box at the center of the lower top section of the outer track box. When bolting or welding at the drillable area 45, one must leave room for a rocket catapult system 6, and 7, which is housed in the rectangular area between the bottom two monorails and directly below the drillable surface area 45. FIG. 6 clearly shows the support track 8, including the corner elbow joining abutment section 12, and the rubber knobs or runner 14, which seal these tracks from outside contact, along the edge of a tight Teflon or Teflon coated metallic mesh end cover 13, depicted partially and in transparency. The device further is supported on a launcher platform legs mold 9, a ceramic tile and alloy or metallic backed blast shield 10, seen partially in FIG. 6, and divided such that two bottom mounted tail fins 11, are slotted underneath the seat or apparattii within the platform legs mold. A area of circumference B, designates the angle theta, being the distance between the launcher platform legs in which the tail fins are slotted as the maximum angle theta the tail fins may exit the leg hole slots. 24, is a hermetically sealed sensor fuse box attached by a ripcord to both three parachutes and a blast shield. A rip cord cable 26, FIG. 15, opens a hermetic seal 25, of said sensor fuse box 24, upon separation of the apparattii and occupant from the aircraft fuselage during ejection. The tracks or rails may be mounted by bolts, molds or welding to any seat portal 38, and sighted to eject 90 degrees perpendicular to the horizontal longitudinal axis 38, and FIG. 1B, or, sighted along the angle 4 to 6 degrees preferred aft of the perpendicular in order to avoid a failed aircraft roll FIG. 4; in accordance with the spirit of the lateral ejection objectives; again, depending upon area limitations imposed by existing aircraft occupancy design, the 90 degrees, right-angle can be the common alignment to the longitude of an aircraft fuselage structure. Bottom-mounted tail fins 11, attached perpendicular to the seat and track apparattii can be automatically turned to any angle theta B, which is the maximum angle theta B, the tail fins may turn and still exit the tail fin slots located within the ejecting seat launcher platform legs 9, and then rudder, steer or direct the lateral ejection apparattii into the trajectory the shortest distance to escaping, exiting or ejected from the life threatening aircraft field of debris FIG. 4 and FIG. 5. The circumventing roller trucks 3, insure stable ejection pitches during foreseen catastrophic rolls, spins or spin and roll movements, impacts and collisions of a failed aircraft, specifically including high-temperature conditions when a guide track moving along a guide rail 1B, 2B, 3B, has the probability of malfunction due to the friction resultant from the expansion of a metallic track and guide rail track against one another, after the addition of the high temperatures from fire caused by accident or a high intensity military conflict and enemy fire; therefore the circumventing roller truck system provides air channels in a grid formation FIG. 10, FIG. 11 and FIG. 12, inside the monorail track tubes, or in other words constructed with 126 roller trucks and 252 roller truck wheels, ventilation ducting cooling system air flow chamber system to prevent or minimize disablement of an ejection track caused by onboard fires and friction.

FIG. 7 is a side view of the triple monorails outer track ejection box **5**, to which any seat or chassis can be mounted and then is movable along the inner tracks and supporting tracks. The corner elbow right angle abutment **12**, attaches the lower portion of the outer track box to the upper portion back of seat, bed or apparatus of the outer track box. Both tail fins can be seen in **FIG 7**, in an unslotted posture free from the launcher platform legs, while a rocket catapults system **6**, and **7**, are concealed behind a teflon mesh covered or teflon coated metallic mesh end cover.

FIG. 8 is a side view of the triple monorails after the outer track box has been ejected, revealing the upper portion of a blast shield **15**, and catapult rocket base seals **16**, and **17**, on a blast shield, and which base seals prevent the outer track box from moving or sliding on either the monorail inner tracks **1,2**, or the support track **8**. These two seals **16**, and **17**, are a failsafe locking mechanism which prevents the outer track box from moving prior to ejection, and which curved collar seals form a circle around the rocket catapult nozzle or nozzles, and said seals are burst by the exhaust of the rocket catapults and the combustion expansion within the seals which spring release this locking connection between the launcher platform base and the movable outer track box.

FIG. 9 is an interior side perspective view of the triple monorails, showing a blast shield **15**, in its outline, and three monorail track support columns **21**, **22**, **23**. **46E**, is the back reinforcing panel of the launcher platform.

FIG. 10 is a transparent back view of the back monorail track **2**, a cross sectional piece of a blast shield **15**, and roller truck wheel bases **3**, supporting roller truck wheels **4**. **FIG. 10**, line **C** is a back side view of a back monorail track support column, **21**, and **FIG. 10** the back of the launcher platform mold covered by the back reinforcing panel **46E**, of the launcher platform, and transparency of the back monorail track.

FIG. 11 is a transparent top view of one of the two bottom positioned monorail tracks **1**, a cross sectional piece of a blast shield **15**, a cross sectional of the mesh metallic end cover **13**, roller truck bases **3**, and roller truck wheels **4**. Line **A-A** corresponds with line **A-A** of **FIG 14**, and represents the positioning of the monorail track beneath the knee and thigh of a seat chassis occupant. **23** is a top view cross sectional piece of the bottom monorail track support column.

FIG. 12 is top view of the supporting track **8**, roller trucks configuration **3**, **4**, which is identical to roller trucks **3**, **4**, design used on the inner monorail tracks **1**. Also shown is a joining abutment between a blast shield **15**, and the support track **8**. **FIG. 12, 23** shows how the support column **23**, intersects a portion of the supporting track roller truck alignment, and the other portion of the supporting track roller trucks is aligned perpendicular to the horizontal longitude of a blast shield.

FIG. 13 is a top view of a corner elbow **12**, of the launcher platform back section and bottom section triangle wedge adjoining abutment framework, supporting track **8**, roller trucks configuration **3, 4**, and a metallic mesh end cover **13**.

FIG. 14 is a top view of an aircraft seat with three parachute cylinders **18, 19, 20**, along the back of the seat chassis, inside the seats back framework. Line **A-A** is the position of the monorail track shown in **FIG. 11**, beneath the knee and thigh of a seat chassis occupant. **21, 22, 23**, are top views of three inner monorail tracks support columns. At least three cylindrical compartments **18, 19, 20**, which attach horizontally to the back of a seat chassis, inside the seat framework or chassis, contain three altitude appropriate parachutes with a hermetically sealed sensor fuse box **24**, a failsafe and ambient pressure measuring device for countering the effects of electro-magnetic interference on the parachute deployment ignition; which controls the unique configuration and deployment of three parachutes with the third updraft, breaking and stabilizing parachute that facilitates fire, presence of liquid water, low or zero altitude ejections, counter acting the inertia forces of the occupant in the laterally ejected apparatus, when during a very low or zero altitude lateral ejection a seat or apparattii is not separated from the occupant **FIG. 5**, initially until a motor harness sequencing completes, except when liquid water is present, employing a gas powered rotor harness release; as when the seat separates from the occupant at higher altitudes in order to reduce the mass of the parachutist and therefore reduce the parachutist's rate of acceleration to a surface; rather, the seat **FIG. 14**, or bed chassis **FIG. 1C**, apparattii and side mounted airbags **42**, and **43**, are utilized along with a third smallest updraft, breaking and stabilizing parachute with circumvential swivel attachment to protect an occupant from the impact forces caused by a rocket catapult acceleration at very low or zero altitude along a trajectory the most lateral to an aircraft fuselage, forward motion/bearing and roll position of an aircraft fuselage when the emergency door is cleared from the lateral ejection pathway **FIG. 3**, for a lateral ejection at the instant of lateral ejection at very low or zero altitudes; since in many if not most examples of helicopters or planes where lateral ejection would be beneficial and life saving; such as in a zero altitude aircraft fire, when said aircraft is upright and not rolled onto its side **FIG's. 1-4**, and has reduced or minimal or zero bearing and the accelerating lateral ejection apparattii and occupant or occupants have the protective surfaces of the seat, bed, chassis, or apparatti and airbags **FIG. 5**, and the updraft, breaking and stabilizing parachute to protect the occupant or occupants body from abrasions, and direct impacts of surfaces into the human body.

FIG. 15 is a top transparent view of a hermetically sealed **25**, altitude appropriate parachute ignition sensor fuse **28**, box **24**, which is connected to a blast shield **15**, by a rip cord **26**, and rip cord base **27**, that pull a hermetic seal **25**, from said sensor fuse box **24**, upon lateral ejection of said apparattii from

an aircraft. A sensor fuse box can be attached to a parachute system. 29 is an ignition wire for three altitude appropriate parachutes 18, 19, 20.

I claim for the Patent Letters:

1. Method for producing lateral ejection apparatus for helicopter or plane comprising, an aircraft fuselage with an interior guide track or rail system arranged perpendicular to the horizontal longitudinal axis of an aircraft fuselage, to which an aircraft seat framework, known as a, chassis or apparatus is attached and which apparatus or apparatus are rocket catapulted from an aircraft fuselage, by said means rocket catapult, so that a triple parachute configuration with a powered rotor motor harness and sensor fuse box with multiple sensors and fuses for activating the appropriate parachute based on ambient pressure can be deployed to recover an aircraft occupant;

two sets of dual airbags for positioning the legs and torso and protecting the head, neck, spine and organs of the ejecting occupant, necessary for safe lateral equal access emergency exit ejection;

three compartments for altitude appropriate parachutes, inside ejection rigid framework back;

a hermetically sealed fuse box with a rip cord attached to a blast shield in which altitude sensitive sensors and fuses for opening the desired altitude appropriate parachutes are contained; with a gas powered rotor motor harness which is useful and effective, not just at moderate and/or high or tolerable altitudes, but during onboard fires, runway overshooting, very low or zero altitudes, or when over a body of water at a very low or tolerable altitude; whenever a motor harness sequencing completes;

laterally ejecting apparatus at very low or zero altitudes, during aircraft fires, or water escape flotation, escapes that utilize a delayed seat, bed or apparatus separation from an occupant, using a gas powered rotor motor harness, so that the apparatus optionally controlled by a sequencing motor harness provides protective surfaces of a bed, seat, apparatus, flotation device located in a bed, seat or apparatus frame bottom or panel and/or airbags for the occupant as the laterally ejecting apparatus impacts the ground, water, air or other surface;

minimizing the lateral force on a spine, neck, head and organs of an occupant by either turning a seat or apparatus in a horizontal degree just prior to lateral ejection to reduce the vertical angle of the human body to the lateral force of a rocket catapult, including using side mounted pressure sensitive airbags or other concave, convex or bucket like restraints to create a rigid restraint and confine for the body, head, neck, spine and organs; or using any other bucket, convex or concave forms to restrain a human body during lateral ejection;

laterally ejectable apparattii which are aerodynamically able to navigate a life threatening aircraft debris field, by employing a track and guide rail construction of a monorail or monorails type, which uses a tubular airfoil form of monorail working as an airfoil or airfoils, i.e. wings, yaws, fins, flaps, rudders rotary positioned on the underside or underside and back of a lateral ejection apparattii, with air current flowing through the empty monorail track tube or tubes, insuring a steady and reliable emergence flight from said aircraft debris field;

a seat chassis able to eject laterally by the opening of an emergency pneumatic rocket propelled fixed greater sliding door panel, in which, a operational conventional hinged door is housed;

an emergency fixed greater sliding door panel with pneumatic rockets located at the top and bottom of the sliding panel, which door or panel is prevented from recoiling into the path of the ejecting occupant and device by spring loaded latch catches attached to the aircraft frame on the outside of a fuselage and pushed into a locked and rigid position by the pneumatic rocket propelled sliding emergency door or panel;

two sets of dual airbags for positioning the legs and torso and protecting the head, neck, spine and organs of the ejecting occupant, and which are mandatory for safe lateral equal access emergency exit ejection;

a anterior side mounted ceramic and alloy or metallic backed blast shield and track support to which a pair of ejection catapult rockets are sealed with collar seals around rocket nozzle ends, until ignited and bursting collar seals with rocket exhaust pressure, thereby preventing a track and seat chassis from moving along an inner and/or supporting track and guide rail, failsafe mainlock and ignition release key nozzle collar;

with a plane pneumatic rocket or other explosive charge method for a drop-down emergency panel or emergency door, and wing strut or support pneumatic removal or other said explosive charge means of wing strut, object or instrument removal from the emergency exit lateral ejection trajectory or pathway;

a track support launcher platform, column, columns or center console support the lateral ejection apparattii at a functional and comfortable level and height for the occupant or occupants.

2. The method for producing lateral ejection apparattii for helicopter or plane comprising;

an aircraft fuselage with a single and/or double track, track and guide rail system arranged perpendicular to the horizontal longitudinal axis of an aircraft interior;

in a single or double track construction, a number of rocket catapult chambers are used, which are correspondingly rocket catapult chambers, **1bb**, **2bb** and/or **3bb**. Moreover the lateral ejection tool is sightable by utilizing an aiming mechanism **FIG. 1B**, directed by a mechanized gear console handle

13B, and swing arm barrel sight seat swivel 14B for rotor positioning the occupant; only when existing fuselage area allows; actuated by cylindrical telescoping hydraulic arms 15B, and 16B, capable of realizing near perfect, or, perfect theoretical, lateral ejection respective of the real time forward motion (pressure) from velocity and position of a failed aircraft, by targeting preferred seat trajectories 9B, 10B, 11B, 12B, towards any quadrant within a sphere when right and left bipolar seat pairs FIG. 1B, are configured in a combat or high performance helicopter or plane; if said aiming mechanism operates independent of a robotic arm, which costs would perhaps become prohibitive except in luxury aircraft or military designs in an exemplary embodiment. The aiming mechanism can work by pushing and pulling rotor positions on the lateral ejection track and guide rail with attached seat chassis, swinging from a center console 13B, containing a ceramic tile with alloy or metallic backing blast shield, and a swivel plate 14B, on which a single track, double track or triple monorail track are attached without overburdening the aircraft with additional weight; including attached simply to an aircraft floor or wall without a center console, riser or launcher platforms;

a seat chassis able to eject laterally by the opening of an emergency pneumatic rocket propelled fixed greater sliding door panel, in which, a operational conventional hinged door is housed;

an emergency fixed greater sliding door panel with pneumatic rockets located at the top and bottom of the sliding panel, which door or panel is prevented from recoiling into the path of the ejecting occupant and device by spring loaded latch catches attached to the aircraft frame on the outside of a fuselage and pushed into a locked and rigid position by the pneumatic rocket propelled sliding emergency door or panel;

two sets of dual airbags for positioning the legs and torso and protecting the head, neck, spine and organs of the ejecting occupant, necessary for safe lateral equal access emergency exit ejection;

three compartments for altitude appropriate parachutes, inside ejection rigid framework back;

a hermetically sealed fuse box with a rip cord attached to a blast shield in which altitude sensitive sensors and fuses for opening the desired altitude appropriate parachutes are contained; with a gas powered rotor motor harness which is useful and effective, not just at moderate and/or high or tolerable altitudes, but during onboard fires, runway overshooting, very low or zero altitudes, or when over a body of water at a very low or tolerable altitude; whenever a motor harness sequencing completes;

laterally ejecting apparattii at very low or zero altitudes, during aircraft fires, or water escape flotation, escapes that utilize a delayed seat, bed or apparattii separation from an occupant, using a gas powered rotor motor harness, so that the apparattii optionally controlled by a sequencing motor harness provides protective surfaces of a bed, seat, apparattii, flotation device located in a bed,

seat or apparattii frame bottom or panel and/or airbags for the occupant as the laterally ejecting apparattii impacts the ground, water, air or other surface;

minimizing the lateral force on a spine, neck, head and organs of an occupant by either turning a seat or apparattii in a horizontal degree just prior to lateral ejection to reduce the vertical angle of the human body to the lateral force of a rocket catapult, including using side mounted pressure sensitive airbags or other concave, convex or bucket like restraints to create a rigid restraint and confine for the body, head, neck, spine and organs; or using any other bucket, convex or concave forms to restrain a human body during lateral ejection;

laterally ejectable apparattii which are aerodynamically able to navigate a life threatening aircraft debris field, by employing a track and guide rail construction of a monorail or monorails type, which uses a tubular airfoil form of monorail working as an airfoil or airfoils, i.e. wings, yaws, fins, flaps, rudders rotary positioned on the underside or underside and back of a lateral ejection apparattii, with air current flowing through the empty monorail track tube or tubes, insuring a steady and reliable emergence flight from said aircraft debris field;

a seat chassis able to eject laterally by the opening of an emergency pneumatic rocket propelled fixed greater sliding door panel, in which, a operational conventional hinged door is housed;

an emergency fixed greater sliding door panel with pneumatic rockets located at the top and bottom of the sliding panel, which door or panel is prevented from recoiling into the path of the ejecting occupant and device by spring loaded latch catches attached to the aircraft frame on the outside of a fuselage and pushed into a locked and rigid position by the pneumatic rocket propelled sliding emergency door or panel;

two sets of dual airbags for positioning the legs and torso and protecting the head, neck, spine and organs of the ejecting occupant, and which are mandatory for safe lateral equal access emergency exit ejection;

a anterior side mounted ceramic and alloy or metallic backed blast shield and track support to which a pair of ejection catapult rockets are sealed with collar seals around rocket nozzle ends, until ignited and bursting collar seals with rocket exhaust pressure, thereby preventing a track and seat chassis from moving along an inner and/or supporting track and guide rail, failsafe mainlock and ignition release key nozzle collar;

with a plane pneumatic rocket or other explosive charge method for a drop-down emergency panel or emergency door, and wing strut or support pneumatic removal or other said explosive charge means of wing strut, object or instrument removal from the emergency exit lateral ejection trajectory or pathway;

a track support launcher platform, column, columns or center console support the lateral ejection apparatus at a functional and comfortable level and height for the occupant or occupants.

3. The method for producing lateral ejection apparatus for helicopter or plane comprising;
an aircraft fuselage, with a, or, a set of seat chassis' mounted on triple monorails, and covered along the guide track end by a teflon mesh or teflon coated metallic mesh end cover;
a monorail supporting track;
an outer track, guide rail box to which any seat chassis or chassis' can be mounted, and ejected laterally, perpendicular to the horizontal longitudinal axis of an aircraft, and guided out of the path of a failed aircraft during ejection flight by two bottom rotor positioning tail fins slotted within the ejection monorails launcher platform legs mold, which fins or rudders at angle θ exit launcher platform leg slots, which is the maximum angle bottom-mounted tail fins can be turned and still exit the launcher platform leg slots;

laterally ejectable apparatus which are aerodynamically able to navigate a life threatening aircraft debris field, by employing a track and guide rail construction of a monorail or monorails type, which uses a tubular airfoil form of monorail working as an airfoil or airfoils, i.e. wings, yaws, fins, flaps, rudders rotary positioned on the underside or underside and back of a lateral ejection apparatus, with air current flowing through the empty monorail track tube or tubes, insuring a steady and reliable emergence flight from said aircraft debris field;

a seat chassis able to eject laterally by the opening of an emergency pneumatic rocket propelled fixed greater sliding door panel, in which, a operational conventional hinged door is housed;

an emergency fixed greater sliding door panel with pneumatic rockets located at the top and bottom of the sliding panel, which door or panel is prevented from recoiling into the path of the ejecting occupant and device by spring loaded latch catches attached to the aircraft frame on the outside of a fuselage and pushed into a locked and rigid position by the pneumatic rocket propelled sliding emergency door or panel;

two sets of dual airbags for positioning the legs and torso and protecting the head, neck and chest of the ejecting occupant, and which are mandatory for safe lateral equal access emergency exit ejection;

three compartments for altitude appropriate parachutes inside ejection rigid framework back;

a hermetically sealed fuse box with a rip cord attached to a blast shield in which altitude sensitive sensors and fuses for opening the desired altitude appropriate parachutes are contained; with a gas powered rotor motor harness which is useful and effective, not just at moderate and/or high or tolerable altitudes, but during onboard fires, runway overshooting, very low or zero altitudes, or

when over a body of water at a very low or tolerable altitude; whenever a motor harness sequencing completes;

laterally ejecting apparattii at very low or zero altitudes, during aircraft fires, or water escape flotation, escapes that utilize a delayed seat, bed or apparattii separation from an occupant, using a gas powered rotor motor harness, so that the apparattii optionally controlled by a sequencing motor harness provides protective surfaces of a bed, seat, apparattii, flotation device located in a bed, seat or apparattii frame bottom or panel and/or airbags for the occupant as the laterally ejecting apparattii impacts the ground, water, air or other surface;

minimizing the lateral force on a spine, neck, head and organs of an occupant by either turning a seat or apparattii in a horizontal degree just prior to lateral ejection to reduce the vertical angle of the human body to the lateral force of a rocket catapult, including using side mounted pressure sensitive airbags or other concave, convex or bucket like restraints to create a rigid restraint and confine for the body, head, neck, spine and organs; or using any other bucket, convex or concave forms to restrain a human body during lateral ejection;

a seat chassis able to eject laterally by the opening of an emergency pneumatic rocket propelled fixed greater sliding door panel, in which, a operational conventional hinged door is housed;

an emergency fixed greater sliding door panel with pneumatic rockets located at the top and bottom of the sliding panel, which door or panel is prevented from recoiling into the path of the ejecting occupant and device by spring loaded latch catches attached to the aircraft frame on the outside of a fuselage and pushed into a locked and rigid position by the pneumatic rocket propelled sliding emergency door or panel;

two sets of dual airbags for positioning the legs and torso and protecting the head, neck, spine and organs of the ejecting occupant, and which are mandatory for safe lateral equal access emergency exit ejection;

a anterior side mounted ceramic and alloy or metallic backed blast shield and track support to which a pair of ejection catapult rockets are sealed with collar seals around rocket nozzle ends, until ignited and bursting collar seals with rocket exhaust pressure, thereby preventing a track and seat chassis from moving along an inner and/or supporting track and guide rail, failsafe mainlock and ignition release key nozzle collar;

with a plane pneumatic rocket or other explosive charge method for a drop-down emergency panel or emergency door, and wing strut or support pneumatic removal or other said explosive charge means of wing strut, object or instrument removal from the emergency exit lateral ejection trajectory or pathway;

a track support launcher platform, column, columns or center console support the lateral ejection apparattii at a functional and comfortable level and height for the occupant or occupants.

4. The method for producing lateral ejection apparattii for helicopter or plane comprising;
an aircraft fuselage, with a, or, a set of seat chassis' mounted on triple monorails, load bearing triple monorails with one-hundred twenty-six roller trucks and two-hundred fifty-two teflon or other fire resistant material coated, circumventing roller truck wheels attached to the inner rails monorail roller trucks grid, and a supporting track grid with forty-two roller trucks and eighty-four roller truck wheels;

a monorail supporting track;

an outer track, guide rail box to which any seat chassis or chassis' can be mounted, and ejected laterally, perpendicular to the horizontal longitudinal axis of an aircraft, and guided out of the path of a failed aircraft during ejection flight by two bottom rotor positioning tail fins slotted within the ejection monorails launcher platform legs mold, which fins or rudders at angle theta exit launcher platform leg slots, which is the maximum angle bottom-mounted tail fins can be turned and still exit the launcher platform leg slots;

laterally ejectable apparattii which are aerodynamically able to navigate a life threatening aircraft debris field, by employing a track and guide rail construction of a monorail or monorails type, which uses a tubular airfoil form of monorail working as an airfoil or airfoils, i.e. wings, yaws, fins, flaps, rudders rotary positioned on the underside or underside and back of a lateral ejection apparattii, with air current flowing through the empty monorail track tube or tubes, insuring a steady and reliable emergence flight from said aircraft debris field;

an ejection guide rail monorail roller truck and roller truck wheels construction, which is a self ventilating grid formation for ducting heat caused by fire or enemy fire, thereby said ventilating preventing or minimizing track freezing or similar failure of a guide track and rail system due to severe friction of metallic or alloy tracks, a track and guide rail expanding against one another from exposure to very high temperatures;

an emergency fixed greater sliding door panel with pneumatic rockets located at the top and bottom of the sliding panel, which door or panel is prevented from recoiling into the path of the ejecting occupant and device by spring loaded latch catches attached to the aircraft frame on the outside of a fuselage and pushed into a locked and rigid position by the pneumatic rocket propelled sliding emergency door or panel;

two sets of dual airbags for positioning the legs and torso and protecting the head, neck and chest of the ejecting occupant, and which are mandatory for safe lateral equal access emergency exit ejection;

three compartments for altitude appropriate parachutes;
a hermetically sealed fuse box with a rip cord attached to a blast shield in which altitude sensitive sensors and fuses for opening the desired altitude appropriate parachutes are contained; with a gas powered rotor motor harness which is useful and effective, not just at moderate and/or high or tolerable altitudes, but during onboard fires, runway overshooting, very low or zero altitudes, or when over a body of water at a very low or tolerable altitude; whenever a motor harness sequencing completes;

laterally ejecting apparattii at very low or zero altitudes, during aircraft fires, or water escape flotation, escapes that utilize a delayed seat, bed or apparattii separation from an occupant, using a gas powered rotor motor harness, so that the apparattii optionally controlled by a sequencing motor harness provides protective surfaces of a bed, seat, apparattii, flotation device located in a bed, seat or apparattii frame bottom or panel and/or airbags for the occupant as the laterally ejecting apparattii impacts the ground, water, air or other surface;

minimizing the lateral force on a spine, neck, head and organs of an occupant by either turning a seat or apparattii in a horizontal degree just prior to lateral ejection to reduce the vertical angle of the human body to the lateral force of a rocket catapult, including using side mounted pressure sensitive airbags or other concave, convex or bucket like restraints to create a rigid restraint and confine for the body, head, neck, spine and organs; or using any other bucket, convex or concave forms to restrain a human body during lateral ejection;

a seat chassis able to eject laterally by the opening of an emergency pneumatic rocket propelled fixed greater sliding door panel, in which, a operational conventional hinged door is housed;

an emergency fixed greater sliding door panel with pneumatic rockets located at the top and bottom of the sliding panel, which door or panel is prevented from recoiling into the path of the ejecting occupant and device by spring loaded latch catches attached to the aircraft frame on the outside of a fuselage and pushed into a locked and rigid position by the pneumatic rocket propelled sliding emergency door or panel;

two sets of dual airbags for positioning the legs and torso and protecting the head, neck, spine and organs of the ejecting occupant, and which are mandatory for safe lateral equal access emergency exit ejection;

a anterior side mounted ceramic and alloy or metallic backed blast shield and track support to which a pair of ejection catapult rockets are sealed with collar seals around rocket nozzle ends, until ignited and bursting collar seals with rocket exhaust pressure, thereby preventing a track and seat chassis from moving along an inner and/or supporting track and guide rail, failsafe mainlock and ignition release key nozzle collar;

with a plane pneumatic rocket or other explosive charge method for a drop-down emergency panel or emergency door, and wing strut or support pneumatic removal or other said explosive charge means of wing strut, object or instrument removal from the emergency exit lateral ejection trajectory or pathway;

a track support launcher platform, column, columns or center console support the lateral ejection apparatus at a functional and comfortable level and height for the occupant or occupants.

5. The method for producing lateral ejection apparatus for helicopter or plane comprising, a bed for sleeping, rest, or emergencies attached to long, perpendicularly arranged track, guide rail or apparatus rocket catapulted propelled laterally out of an aircraft fuselage interior by a rocket catapult system;

a monorail supporting track;

an outer track, guide rail box to which any seat chassis or chassis' can be mounted, and ejected laterally, perpendicular to the horizontal longitudinal axis of an aircraft, and guided out of the path of a failed aircraft during ejection flight by two bottom rotor positioning tail fins slotted within the ejection monorails launcher platform legs mold, which fins or rudders at angle θ exit launcher platform leg slots, which is the maximum angle bottom-mounted tail fins can be turned and still exit the launcher platform leg slots;

laterally ejectable apparatus which are aerodynamically able to navigate a life threatening aircraft debris field, by employing a track and guide rail construction of a monorail or monorails type, which uses a tubular airfoil form of monorail working as an airfoil or airfoils, i.e. wings, yaws, fins, flaps, rudders rotary positioned on the underside or underside and back of a lateral ejection apparatus, with air current flowing through the empty monorail track tube or tubes, insuring a steady and reliable emergence flight from said aircraft debris field;

an ejection guide rail monorail roller truck and roller truck wheels construction, which is a self ventilating grid formation for ducting heat caused by fire or enemy fire, thereby said ventilating preventing or minimizing track freezing or similar failure of a guide track and rail system due to

severe friction of metallic or alloy tracks, a track and guide rail expanding against one another from exposure to very high temperatures;

an emergency fixed greater sliding door panel with pneumatic rockets located at the top and bottom of the sliding panel or door, which design is prevented from recoiling into the path of the ejecting occupant and device by spring loaded latch catches attached to the aircraft frame on the outside of a fuselage;

two sets of dual airbags for positioning the legs and torso and protecting the head, neck and chest of the ejecting occupant, necessary for safe lateral equal access emergency exit ejection;

three compartments for altitude appropriate parachutes;

a hermetically sealed fuse box with a rip cord attached to a blast shield in which altitude sensitive sensors and fuses for opening the desired altitude appropriate parachutes are contained; with a gas powered rotor motor harness which is useful and effective, not just at moderate and/or high or tolerable altitudes, but during onboard fires, runway overshooting, very low or zero altitudes, or when over a body of water at a very low or tolerable altitude; whenever a motor harness sequencing completes;

laterally ejecting apparatus at very low or zero altitudes, during aircraft fires, or water escape flotation, escapes that utilize a delayed seat, bed or apparatus separation from an occupant, using a gas powered rotor motor harness, so that the apparatus optionally controlled by a sequencing motor harness provides protective surfaces of a bed, seat, apparatus, flotation device located in a bed, seat or apparatus frame bottom or panel and/or airbags for the occupant as the laterally ejecting apparatus impacts the ground, water, air or other surface;

minimizing the lateral force on a spine, neck, head and organs of an occupant by either turning a seat or apparatus in a horizontal degree just prior to lateral ejection to reduce the vertical angle of the human body to the lateral force of a rocket catapult, including using side mounted pressure sensitive airbags or other concave, convex or bucket like restraints to create a rigid restraint and confine for the body, head, neck, spine and organs; or using any other bucket, convex or concave forms to restrain a human body during lateral ejection;

a seat chassis able to eject laterally by the opening of an emergency pneumatic rocket propelled fixed greater sliding door panel, in which, a operational conventional hinged door is housed;

an emergency fixed greater sliding door panel with pneumatic rockets located at the top and bottom of the sliding panel, which door or panel is prevented from recoiling into the path of the ejecting occupant and device by spring loaded latch catches attached to the aircraft frame on the

outside of a fuselage and pushed into a locked and rigid position by the pneumatic rocket propelled sliding emergency door or panel;

two sets of dual airbags for positioning the legs and torso and protecting the head, neck, spine and organs of the ejecting occupant, and which are mandatory for safe lateral equal access emergency exit ejection;

a anterior side mounted ceramic and alloy or metallic backed blast shield and track support to which a pair of ejection catapult rockets are sealed with collar seals around rocket nozzle ends, until ignited and bursting collar seals with rocket exhaust pressure, thereby preventing a track and seat chassis from moving along an inner and/or supporting track and guide rail, failsafe mainlock and ignition release key nozzle collar;

with a plane pneumatic rocket or other explosive charge method for a drop-down emergency panel or emergency door, and wing strut or support pneumatic removal or other said explosive charge means of wing strut, object or instrument removal from the emergency exit lateral ejection trajectory or pathway;

a track support launcher platform, column, columns or center console support the lateral ejection apparattii at a functional and comfortable level and height for the occupant or occupants.

6. An aircraft fuselage for lateral ejection apparattii which is enlarged and has additional supporting aircraft fuselage struts and structural supports installed in the fuselage frame structure with slender tempered glass panes added to the fuselage frame in order to accommodate the lateral ejection apparattii with the same near number of aircraft seats, and improved field of view for the aircraft pilots, crew, passengers or other occupants.

7. A safe, stable and efficient process, methodology, devices and apparattii, whereby all occupants of aircraft, be they helicopters or planes, or, like action crossovers, such as gyroplanes or spacecraft designed to fly like planes, are laterally ejected from an imperiled and life threatening said aircraft;

providing laterally aligned escape devices for all types of private, business, commercial, government and general aviation aircraft, which lateral ejection apparattii are stable, reliable, simple, efficient, safe and effective at extracting aircraft occupants from life threatening aircraft, whether they are sitting in a seat or lying down in a bed, or in an aircraft cabin or cockpit;

a method and process of escaping life threatening aircraft by rocket catapult propulsion and a unique multiple parachute configuration to extract pilots, passengers, emergency and medical patients in seats, beds or apparattii from life threatening aircraft by configuring rigid ejection

apparattii framework perpendicular to aircraft longitudinal horizontal axis and propelling said occupant or occupants out the side of said aircraft by a rocket catapult system, past an emergency pneumatic rocket actuated sliding aircraft door or panel, wing strut, support or other propelled object in the lateral ejection pathway, so then an automatic parachute system can deploy, and lower or recover the laterally ejected occupant or occupants to the ground or surface.

8. Teflon or other fire resistant material, primarily on the outer surface, but not limited to the outer surfaces of a seat or bed or apparattii right and left side mounted, pressure sensitive airbags, and roller truck wheels, and track mesh end cover to prevent fire or enemy fire from burning or hitting the ejected occupant or occupants, or igniting the guide track or igniting the roller truck wheels.

9. An advantageous arrangement combining the advantages of conventional jet aircraft vertically seeking ejection apparatus with the advantages of lateral ejection apparattii and process.

10. When aircraft seats and their occupants can be aligned and usually are in commercial and private aircraft, along the edge of the planes right and left latitudes, and ejected laterally; thereby, when an aircraft is in an upright posture minimizing both the applied force of gravity pulling down on the seat and seat occupant and distance, angle and altitude of recovery and rocket power off during the apparatus transversing from point A to point B; so to be removed by the lateral ejection apparattii powered by a rocket catapult and moving from point A to point B along the same or near same gravitational plane along a preferred angle of descent and recovery when ejected laterally from a plane in a dangerous or life threatening descent; so that an automatic, individual parachute system can be automatically activated and deployed to break and stabilize the plane occupant(s) descent to a surface, after ejecting laterally from a plane.

11. Separately falling seats and parachutists in aircraft that are laterally ejected perpendicular to the horizontal longitudinal axis of an aircraft fuselage in seat rows aligned in aisles on a reloading chain and gas engine powered track and guide rail lateral ejection apparattii are also constructed for laterally ejecting aircraft occupants who are arranged in rows and aisles.

12. Rotor positioning apparattii and aircraft occupants for lateral ejection from an upright, rolled or rolling aircraft fuselage.
